

IMPLEMENTATION SCHEDULE

The Implementation Schedule that follows describes recovery task priorities, task numbers, task descriptions, duration of tasks, potential or participating responsible parties, total cost estimate and estimates for the next five years, if available, and comments. These tasks, when accomplished, are expected to lead to recovery of bull trout in the Malheur Recovery Unit. Cost estimates are not provided for tasks which are normal agency responsibility under existing authorities. It should be noted that many of the estimated costs assigned to these recovery tasks will also benefit listed salmon and steelhead.

Parties with authority, responsibility, or expressed interest to implement a specific recovery task are identified in the Implementation Schedule. Listing a responsible party does not imply that prior approval has been given or require that party to participate or expend any funds. However, willing participants will benefit by demonstrating that their budget submission or funding request is for a recovery task identified in an approved recovery plan, and is therefore part of a coordinated recovery effort to recover bull trout. In addition, Section 7 (a)(1) of the Endangered Species Act directs all Federal Agencies to use their authorities to further the purposes of the Act by implementing programs for the conservation of threatened or endangered species.

The following are definitions to column headings in the Implementation Schedule:

Priority Number: All priority 1 tasks are listed first, followed by priority 2 and priority 3 tasks.

Priority 1: All actions that must be taken to prevent extinction or to prevent the species from declining irreversibly in the foreseeable future.

Priority 2: All actions that must be taken to prevent a significant decline in species population, habitat quality, or some other significant negative effect short of extinction.

Priority 3: All other actions necessary to provide for full recovery (or reclassification) of the species.

Task Number and Task Description: Recovery tasks are numbered as in the recovery outline. Refer to the action narrative for task descriptions.

Task Duration: Expected number of years to complete the corresponding task. Study designs can incorporate more than one task, which when combined, may reduce the time needed for task completion.

Responsible or Participating Party: Federal, State, Native American Tribes, non-governmental organizations, or universities with responsibility or capability to fund, authorize or carry out the corresponding recovery task. Lead agencies are indicated in **bold type**. Additional identified agencies or parties are considered cooperators in restoration efforts.

Identified parties include:

BLM	U.S. Bureau of Land Management
BPT	Burns Paiute Tribe
ID	irrigation districts
NGOs	Non-governmental organizations
NRCS	Natural Resources Conservation Service
ODA	Oregon Department of Agriculture
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODOF	Oregon Department of Forestry
OSP	Oregon State Police
OWRD	Oregon Water Resources Department
RUT	Recovery Unit Team
TMDLWG	Total Maximum Daily Load working group
USBOR	U.S. Bureau of Reclamation
USEPA	U.S. Environmental Protection Agency
USFS	United States Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geologic Service
WC	Watershed Councils

Cost Estimates: Cost estimates are rough approximations and are provided only for general guidance. Total costs are estimated for the duration of the task and also itemized annually for the next five years.

An asterisk (*) in the total cost column indicates ongoing tasks that are currently being implemented as part of normal agency responsibilities under existing authorities. Because these tasks are not being done specifically or solely for bull trout conservation, they are not included in the cost estimates. Some of these efforts may be occurring at reduced funding levels and/or in only a small portion of the watershed.

Implementation schedule for the bull trout recovery plan: Malheur Recovery Unit										
Task Priority	Task Number	Task Description	Task Duration (years)	Responsible Parties	Cost Estimates (in \$1,000 units)					Comments
					Total Costs	Year 1	Year 2	Year 3	Year 4	
1	1.1.1	Assess sediment sources in Malheur Basin affecting bull trout	10	USFS	30		10	10	10	Covered under existing programs
1	1.1.2	Stabilize roads, crossings, and other sources of sediment delivery	10		200		20	20	20	
1	1.2.1	Identify and implement opportunities for two-way passage at major dams	20	BOR, ID, ODFW, USFWS	50	50				Cost is for proposed study only; implementation costs unknown.
1	1.2.2	Provide passage at transportation/road-related barriers identified in completed and ongoing surveys	25	USFS, ODOT, Counties	50	50				Ongoing. Cost are for completion of surveys; project costs unknown at this time
1	1.2.3	Install appropriate fish screens and passage structures around diversions and/or remove related migration barriers	10	ODFW, BPT, USFS, landowners	100					Discussions ongoing. Cost estimate is for design only.; project costs unknown at this time
1	1.3.4	Improve instream habitat	10	USFS, USFWS	2500	25	25	25	25	Ongoing
1	1.5.1	Assess current and historical effects of upland management on changes to the hydrograph, (e.g., timing and magnitude of peak flows) in all spawning tributaries	1	USFS, USFWS	50		50			

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1	2.5.1	Implement brook trout removal effort(s) wherever feasible and biologically supportable	25	ODFW, BPT	1000		40	40	40	
1	3.1.1	Incorporate bull trout recovery actions into The Oregon Plan for Salmon and Watersheds and the Pacific Northwest Power Planning Council Subbasin plans	25	ODFW	*					Currently providing monthly reports to Oregon Plan staff
1	3.3.1	Determine site-specific levels of competition and hybridization with introduced sport fish and assess impacts of those interactions	2	ODFW, USFWS	350		125	125		
1	4.1.1	Develop genetic management plan	3	USFWS, ODFW, BPT	300	100	100	100		
1	5.2.1	Identify site-specific threats that may be limiting bull trout in watersheds with historical bull trout habitat	3	USFS, RUT, USFWS	100					
1	5.2.3	Investigate potential for restoring historic prey base by reintroducing anadromous species	2-10	ODFW, BPT	30		30			Cost is for feasibility analysis only

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1	5.5.2	Conduct regular surveys in potential habitat in the Malheur Core Area where bull trout status is unknown or recolonization is anticipated	25	RUT, USFWS, USFS, BLM	200					Periodic re-surveys during life of recovery plan
1	5.5.4	Determine consequences of genetic fragmentation/isolation due to human-made barriers	5	USFWS, ODFW	500		100	100	100	
1	6.1.4	Identify and pursue opportunities to implement recovery strategies	25	USFWS, RUT	*					
1	7.1.1	Develop an annual work plan to support implementation in the Malheur Recovery Unit	5	RUT	*					
2	1.1.4	Increase monitoring of sediment inputs on the Malheur National Forest	20	USFS	200	10	10	10	10	
2	1.3.1	Restore shade and canopy, riparian cover, and native vegetation in all bull trout spawning areas	10	USFS, BLM, BPT, WC, landowners	250	25	25	25	25	Efforts currently underway on public and tribal lands
2	1.3.2	Reduce grazing impacts in all bull trout spawning areas	5	USFS, BPT, landowners	500		100	100	100	

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2	1.3.3	Review habitat information to identify and prioritize opportunities for channel restoration in Lake Creek	1	USFS, ODFW, BPT, USFWS	30		30			Cost for study and design only; implementation costs unknown at this time
2	1.4.1	Review reservoir operational concerns and provide operating recommendations through Federal consultation or other means	25	BOR, USFWS	*					Studies underway
2	1.4.2	Establish/provide instream flows downstream from reservoirs and stabilize flow regimes	25	USBR, ODFW	100					
2	2.3.1	Develop and implement an educational effort to address problems and consequences of unauthorized fish introductions	1	USFWS, ODFW	10		10			
2	3.2.1	Maintain bull trout as high priority for Oregon's Cooperative Enforcement Program	25	ODFW, OSP	*					Priorities set at annual coordination meetings
2	5.5.3	Determine life history requirements of resident and migratory bull trout local populations in the Malheur Core Area	5	ODFW, BPT, USFWS	250		50	50	50	

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2	6.1.1	Provide long-term habitat protection	25	ODFW, BPT, USFS, BLM, USFWS	1,250		50	50	50	
2	6.1.3	Develop educational materials on bull trout and their habitat needs to provide to landowners and interested public parties	2	ODFW, USFS, USFWS	40		20	20		
2	6.1.5	Integrate watershed analyses and assessments and restoration activities on public and private lands	25	RUT, DEQ, WC	*					
3	1.1.3	Assess and mitigate effects on bull trout from non-point source pollution	10	DEQ, WC, ODA, NRCS, USFWS	200	20	20	20	20	Covered under TMDL and SB1010 plans
3	1.2.4	Restore connectivity and opportunities for migration by improving instream flows and/or water rights	25	ODFW, OWRD, BPT	1000	40	40	40	40	Ongoing
3	3.1.2	Coordinate bull trout recovery with recovery efforts, management plans, etc. of other species such as redband trout	25	ODFW, USFWS	*					Covered under existing management plan.

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3	3.2.2	Increase information outreach to anglers	5	ODFW, USFS, BLM, USFWS	50		50			Costs are for development of materials; implementation would be an ongoing process
3	3.2.3	Improve and implement fisheries management guidelines and policies designed to protect native species	25	ODFW, USFWS, USFS, BLM	*					
3	5.1.1	Evaluate effectiveness of different habitat restoration techniques in restoring channel functions and local bull trout populations in the Malheur Core Area	10	USFS, BLM, BPT, USFWS	200		20	20	20	
3	5.2.2	Determine the movement and seasonality of use of different habitat types by adult and sub-adult migratory bull trout in multiple streams, with emphasis on reservoirs and mainstem rivers	3	RUT, ODFW, USFW, USFS, BLM	*					In progress
3	5.5.1	Review and update databases for bull trout distribution records	25	RUT	250		5	5	5	Basic database has been established and incorporated into StreamNet (2002)

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3	5.5.5	Evaluate food web interactions in drainages most affected by introduced fishes, reservoir operations, loss of anadromous species (prey base/nutrients), etc	25	BOR, USGS	*					Ongoing studies
3	6.1.2	Work cooperatively with the Burns-Paiute tribal government to implement recovery actions	25	RUT, USFWS	*					
3	7.3.1	Periodically review progress towards recovery goals and assess recovery task	25	USFWS	*					